

GB-200+

Image blending and warping processor

A Powerful Performer



Auto blending and stacking on curved and flat surfaces



Powerful and intuitive blending and warping



Black level adjustment



Multi region color correction



Geometric correction for off-axis projection and stacking



High resolution image blending (up to 1920x1200 per output)



Dual channel output



3D edge blending



GB-200+

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Is a powerful and intuitive image blending and warping processor that provides the ability to merge overlapping edges of two or more projectors.

The GB-200+ has added auto stacking along with auto blending using a compatible (not included) camera and Auto Warp software (included with GB-200+).

The Auto Warp software provides the ability to auto blend on flat and curved surfaces up to six projectors with a maximum resolution of 1920x1200 pixels per projector, providing an horizontal display of around 10k pixels across the screen depending on the overlap area.

Optoma's GB-200+ provides the ability to pre-cut a single image to form a seamless picture of up to a 2x2 projection array, making your installation quicker and easier. More complex arrays are not a barrier for the GB-200+, they can be done with the help of a multi output graphic card.

Resolutions including XGA, WXGA, 1080p and WUXGA are supported via VGA, DVI and HDMI connections. Color, black level and gamma correction are engaged to compensate for the challenges faced when blending projectors.



GB-200+ STRUCTURE

Edge blending using GB-200+ to pre-cut the image



GB-200+

GB-200+ STRUCTURE

Edge blending using multi-output graphic card to pre-cut the image

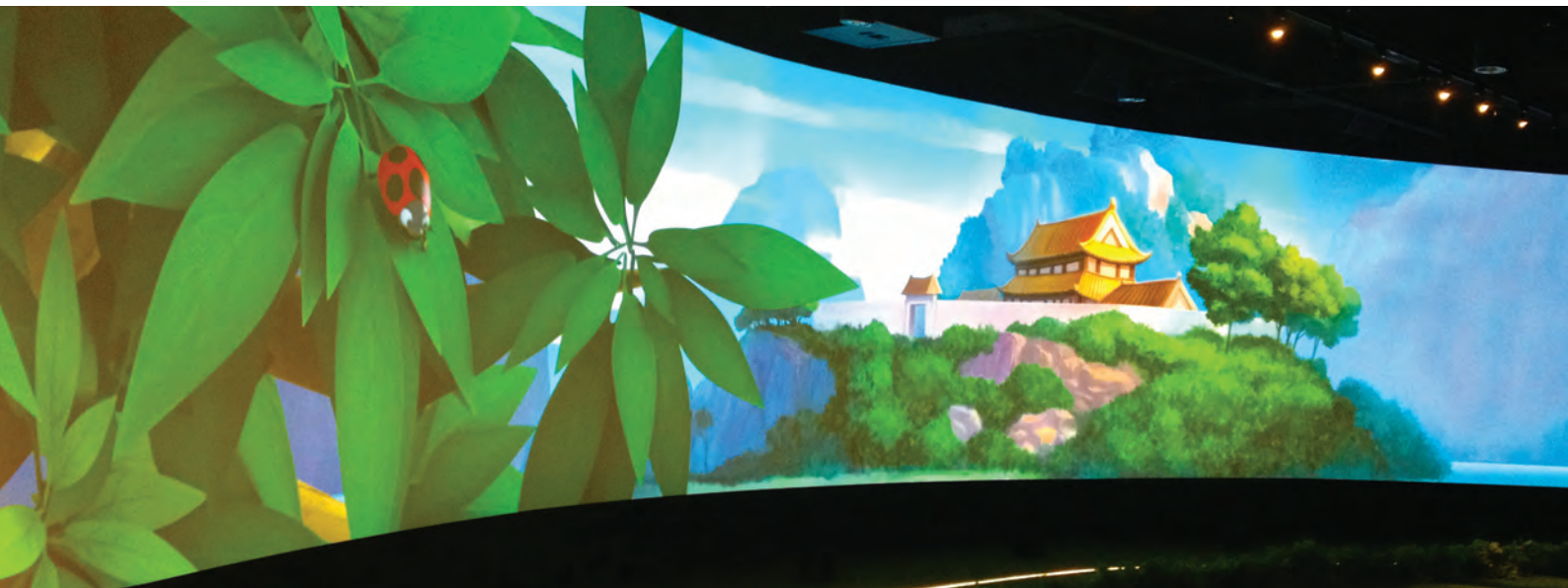
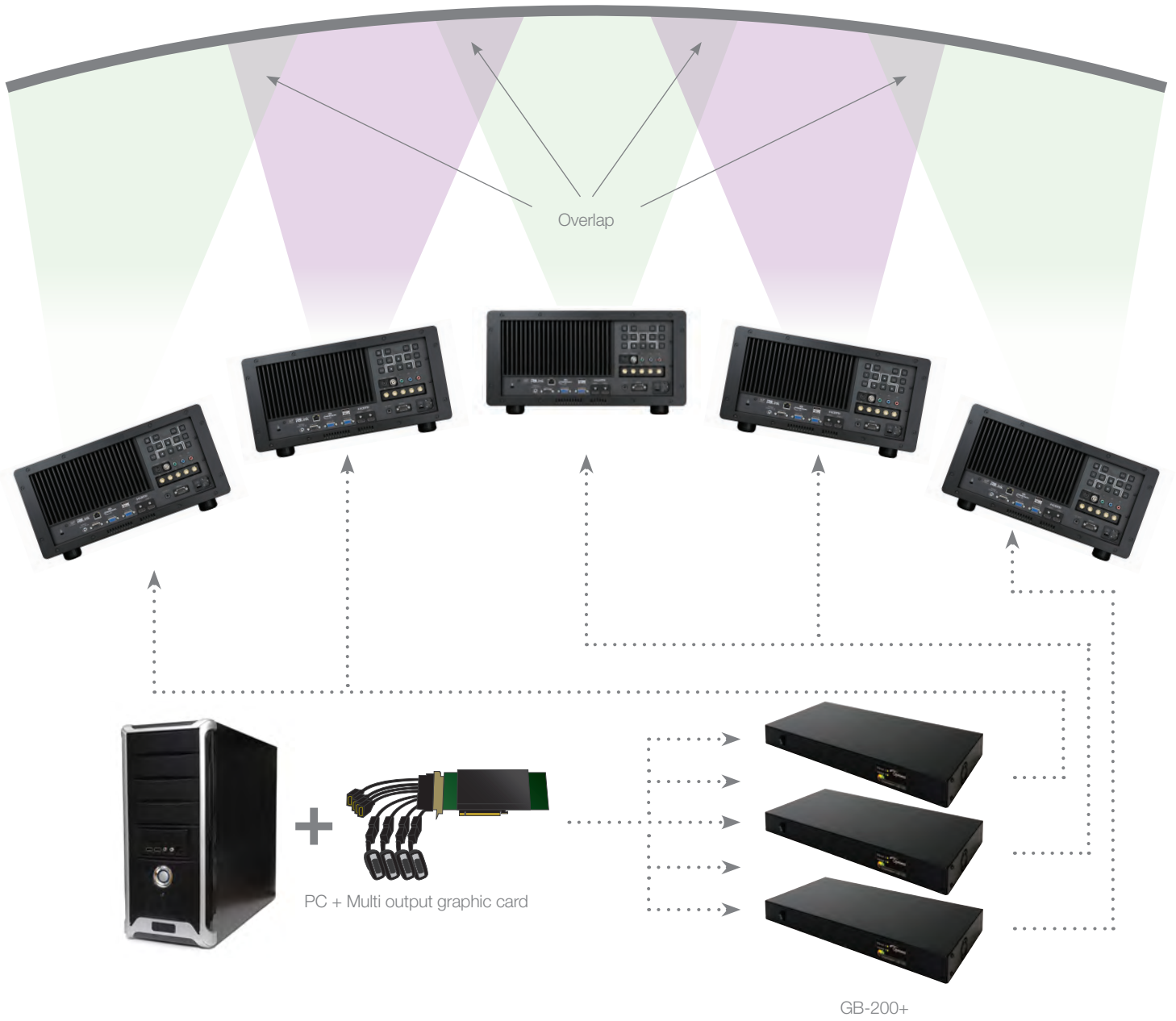
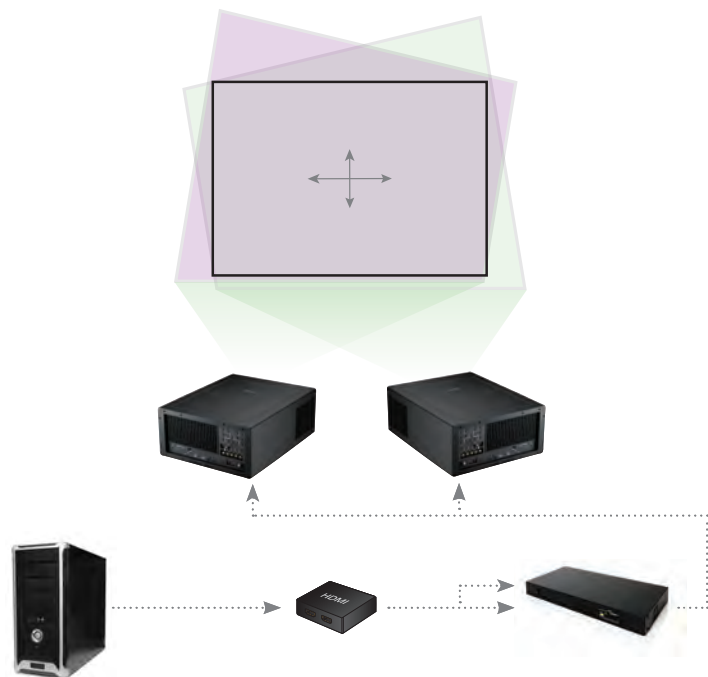


IMAGE STACKING

Increase your image brightness at a low cost by using two or more projectors. With warp adjustment, you can achieve any brightness you want.

Image stacking permits flexible installations and easy maintenance, aiding an image to be displayed without interruption when swapping lamps. In addition, you can realign two images to be perfectly square when no lens shift is available.

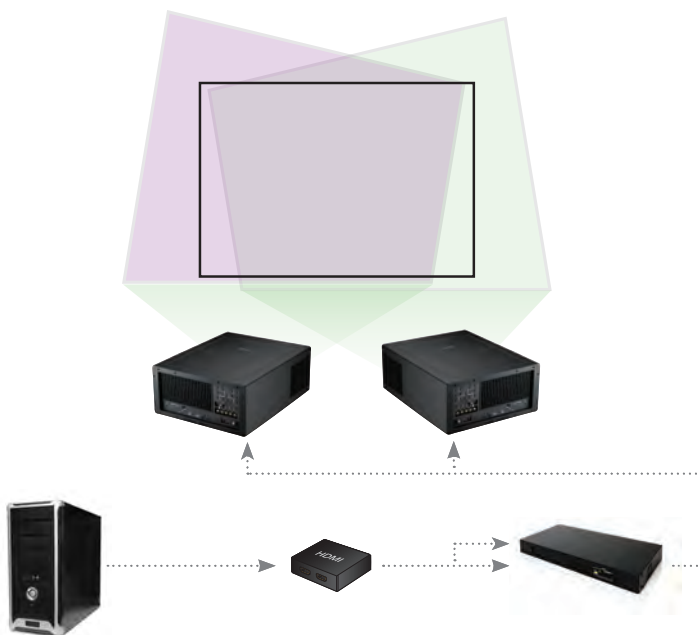
2 Lens Shift



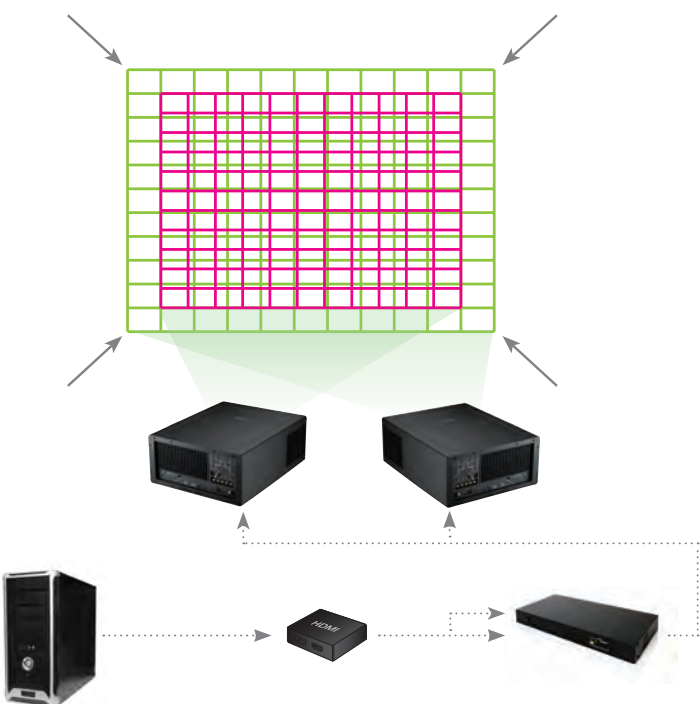
4 Final Image



1 Angled Projection



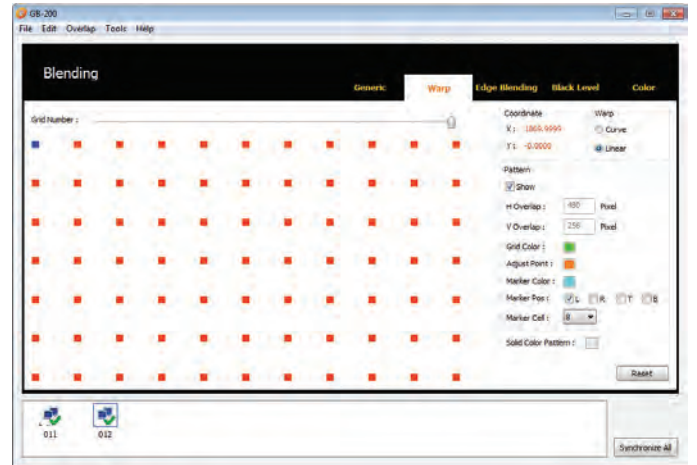
3 Warping



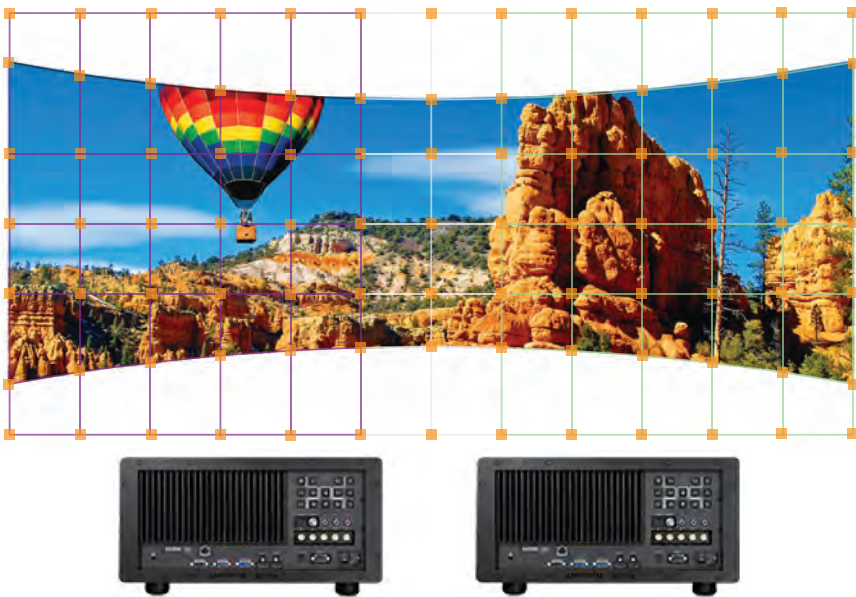
GB-200+

ADVANCED GRID WARP ADJUSTMENT FOR FLAT AND CURVED SURFACES.

1 Software tool 17 x 17 grid warp



2 Advanced warp adjustment



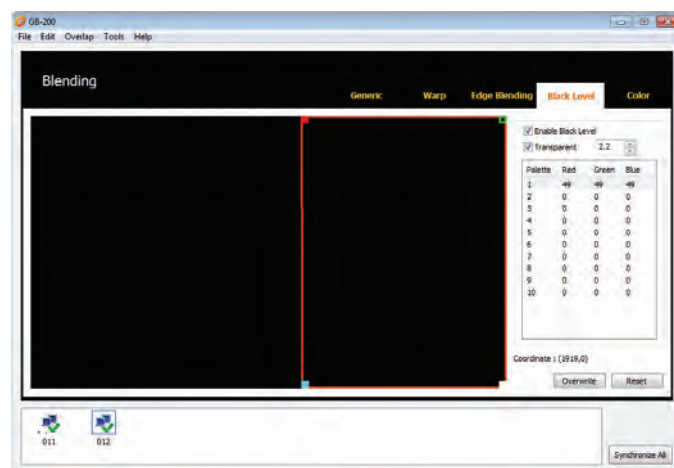
3 Curved screen



ADVANCED BLACK LEVEL UPLIFT

Black level uplift with RGB and HSL correction, allows you to make an accurate matching between the outside and overlapped areas in order to achieve a perfect seamless image when the lighting environment is very low.

1 Software tool black level uplift



2 Edge blending without black level uplift



3 Edge blending with black level uplift



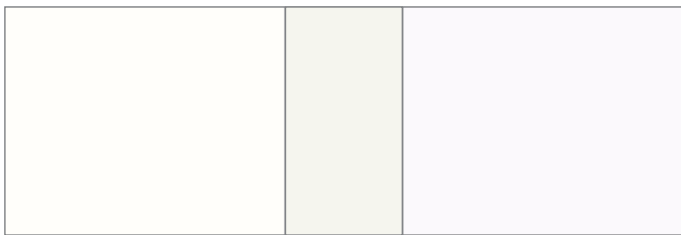
This feature is not supported using the Auto Warp software for auto blending and stacking, but if this feature is needed on your installation, the GB-200 software also included on the memory stick support this feature by manual adjustment.

GB-200+

ADVANCED MULTI REGION COLOR CORRECTION

Multi region color correction allows you to adjust the white points of two projected images to make a full white seamless image.

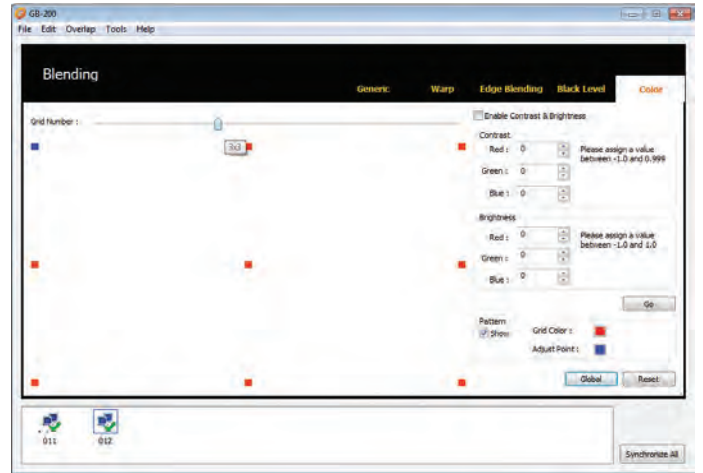
2 Edge blending without white balance correction



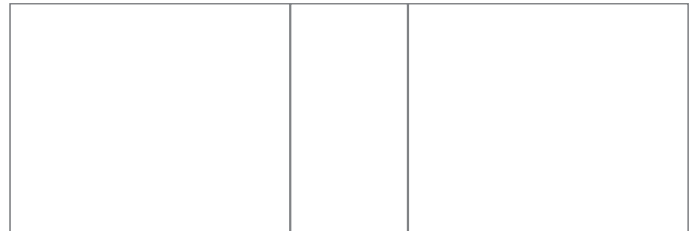
4 Edge blending without color correction



1 Software tool multi region color correction



3 Edge blending with white balance correction



5 Edge blending with color correction



This feature is not supported using the Auto Warp software for auto blending and stacking, but if this feature is needed on your installation, the GB-200 software also included on the memory stick support this feature by manual adjustment.

GB-200+ with AUTO WARP SOFTWARE

Auto blending is a simple and easy method to achieve a seamless image in just minutes, using a camera to capture two projected images the auto warp software calibrates and synchronize GB-200+ processor to perform a blend in less than 7 minutes.

- 2 Place the camera in the middle of the screen to auto calibrate the overlap area and the corners of the screen.



- 4 Save the file, remove camera and PC/Software.



- 1 Use zoom and lens shift and focus to position the image of the projectors to cover the entire screen area



- 3 Edge blending set up is finished between 5 to 7 minutes



GB-200+ SPECIFICATIONS

Supported PC timing:	XGA 60Hz, WXGA 60Hz, 1080P 30/50/60/120Hz* and WUXGA 60Hz AP: Support Win 7 OS
I/O Connectors:	Power Switch HDMI Input x 2, DVI-D x 2 (Supporting HDCP) HDMI Output x 2, VGA Output x 2 Control Interface: LAN control x 2 ports, via LAN hub and static IP address RS-232 connection x 2 (For debugging only) Power supply interface: DC 19V power port x1
Operating Noise	26 dB (typical) / 28 dB (Max)
Power Consumption	AC 100 ~ 240V 50/60Hz / 32W ~110VAC (Power Adapter)
Dimensions (W x D x H)	4300mm x 195mm x 44mm
Weight	4.3lbs
Auto blending camera	Logitech C920 Pro
USB Memory Stick	GB-200 user manual, GB-200 manual blending software, Auto warp software

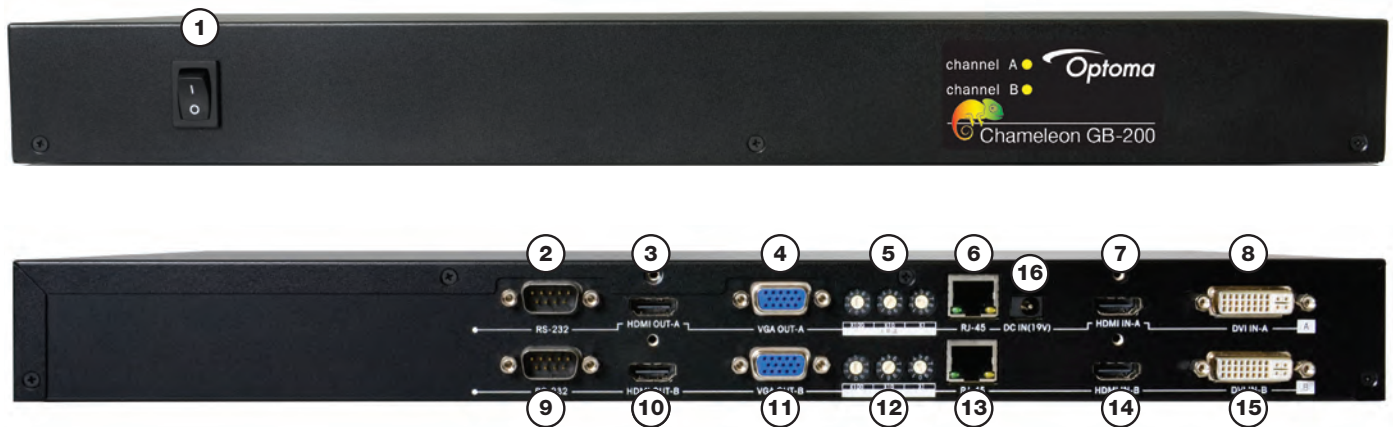
GB-200+ I/O

- 1 Power Switch
- 2 RS232 1 (for service only)
- 3 HDMI Out 1
- 4 VGA Out 1
- 5 IP address adjustment 1
- 6 RJ45 connection 1
- 7 HDMI In 1
- 8 DVI In 1
- 9 RS232 2
- 10 HDMI Out 2
- 11 VGA Out 2
- 12 IP address adjustment 2
- 13 RJ45 connection 2
- 14 HDMI In 2
- 15 DVI In 2
- 16 Power Port

*Accessories – Rack mount ears, Memory stick, Power supply.

*1080p timing will vary depending on the set-up, when using GB-200+ to pre-cut the image it will only support 1080p 30Hz.

*For active 3D edge blending using the GB-200+ processor the compatible resolutions are: XGA, 720p and WXGA at 120hz, using a multi output graphics card.



Auto Warp software is included on the memory stick, found in the accessory box.

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